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ABSTRACT

The career exploration program for grades 9 through 10, as part of a comprehensive K through 10 career development program, attempts to develop an awareness of and appreciation for work, extend knowledge of the variety of career opportunities, and provide experiences in career areas of individual interest. The document, a collection of materials consisting of student learning experience packets and selected sample forms, is designed to introduce the students to careers in ornamental horticulture. The introduction defines the career area and discusses the course objectives, course strategy, and suggested time table. The learning activities, organized according to objectives, activities, and resources, cover: introductory activities, horticulture, nursery operation, arboriculture, turf grass management technician, landscape development, park and recreational land management, individual student exploration into related careers, and student self-evaluation of career maturity. Activities include: job and student interest analysis, role playing, simulations, field trips, interviews, observations, establishment of resource library on jobs and clusters, and case studies. The procedures and suggestions for both exploration and field trips, a permission and report form for exploration trips, interview form, job analysis work sheet, job descriptions, individual evaluation sheet, and a list of multi-media materials are appended. (JB)

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CAREER EXPLORATION 9 – 10

EXPLORING CAREERS

IN

ORNAMENTAL HORTICULTURE

CE003754

CAREER DEVELOPMENT K – 10

CINCINNATI PUBLIC SCHOOLS

2

ED106582

CAREER EXPLORATION

CINCINNATI PUBLIC SCHOOLS

GRADES 9-10

EXPLORING CAREERS IN

ORNAMENTAL HOTRICULTURE
(Tentative Copy)

Revised Edition
1973

1

CAREER DEVELOPMENT

The Career Development Program responds to the needs of students, taxpayers, and employers for the public schools to provide personal, social, and economic relevance in the educational process. It is an integral part of the educational process essential to the development of all students.

The Career Development components, which are Career Motivation (K-6), Career Orientation (7-8) and Career Exploration (9-10), develop an awareness and appreciation for work, extend knowledge of the variety of career opportunities, and provide experiences in career areas of individual interest. These goals are accomplished through a curriculum based on pupil activities involving simulation, role playing, and individual investigation. These activities require that administrators and teachers develop a new level of working relationships with community resources such as public institutions, business, labor, and industry.

Every individual's right to learn what he or she needs in order to be a producing, participating member of society is a fundamental responsibility of education. Each individual also has a right to self-fulfillment. Career Development, presented as inseparable elements inherent within every level and subject area of the school curriculum, provides each student with the skills and insights to recognize and pursue goals of personal significance. As a result of this program students will increase their abilities to make well-informed and experience-based decisions related to their personal life, school program, and career selection.

Donald R. Waldrip, Superintendent
Cincinnati Public Schools

CAREER EXPLORATION

Career Exploration is the 9th and 10th grade component of the Career Development Program. Its primary goal is to provide experiences related to career areas chosen by the student. Focus is on the student's perception of himself or herself in relation to the real world of career opportunities. Emphasis is on individualized and personalized activities and experiences.

The student chooses and studies a specific career area using skills and insights gained in earlier parts of the Career Development Program. Students explore occupations within the chosen area with particular attention to those most closely related to their own needs, interests, and abilities. They will experience some of the satisfactions, opportunities, limitations and frustrations peculiar to the various occupations.

Career Exploration is planned as the culmination of the Career Development Program. Successful exploratory experiences will enable the student to formulate and refine realistic and personally meaningful career goals. These experiences will also provide a basis for planning a course of studies in the 11th and 12th grades (and beyond) pursuing career goals.

Stanley A. Marsh
Administrative Assistant to
the Superintendent

FOREWORD

This manual is one of a series produced by the Cincinnati Public Schools as a part of a project designed to provide Career Exploration for students in grades 9 and 10.

It is designed to provide activities and information about an occupational area that will provide a more in-depth study than presented in Career Orientation in grades 7 and 8.

This is a tentative guide and has been developed for the purpose of field testing and revising based upon feedback from participating teachers.

This manual was developed in the summer of 1972 by Erv Shroeder, a Science Teacher at Schwab Junior High School. Merle Koening, a Science Teacher at Aiken High School, has revised this manual based on experience obtained during its use in the 1972-73 school year at Aiken. Jack Ford, an instructional consultant, conducted the curriculum development under the General Supervision of Mr. Ralph E. Shauck, Coordinator of Instructional Services.

TABLE OF CONTENTS

ENDORSEMENT		i
RATIONALE		ii
FOREWORD		iii
I.	INTRODUCTION	1
	A. Definition of Career Area	2
	B. Course Objectives	2
	C. Course Strategy	3
	D. Suggested Time Table	4
II.	MAJOR FIELDS AND OCCUPATIONS IN ORNAMENTAL HORTICULTURE	7
III.	CAREER EXPLORATION ACTIVITIES	9
IV.	APPENDIX	27

INTRODUCTION

A. Definition of Career Area

Horticulture deals with the culture of plants used principally for ornamental or aesthetic purposes. Jobs are organized under such descriptive titles as Arboriculture, Fine Turf Management, Floriculture, Green House Management, Landscaping, Nursery Operator, and other Ornamental Horticulture; however, in urban living, new jobs are being created by businesses in such fields as chemical control of lawns for homeowners. These compaines spray or apply chemicals for grass growth, weed control and insect control.

Homeowners provide many jobs in this field. Many have power equipment for care of their property. The sales and service of this equipment provide jobs.

Plants provide food and homes for birds, the last contact of city people with wild animals. Sales of bird seeds are increasing. There seems to be more planting in cities. People interested in ecology are demanding more greenbelts. Workers must be trained to conceive these greenbelts.

The horticulturist conducts experiments and investigation on methods of improvement in quality and production of ornamental plants, such as flowering bulbs, herbaceiou annuals and perennials, woody flower-bearing shrubs and trees, cacti, aquatic plants, vines shrubs, and trees; seeks such results as improved color or shape, increase in number of blooms, resistance to disease, and adaptability to conditions of shipping and storing. He may specialize in flower culture and be designated as floriculturist, or in culture and artistic planting and trimming trees and be designated as arboriculturist.

B. Course Objectives

The purpose of this course is to help students explore jobs in ornamental horticulture and related fields. It is not a course in horticulture. This writing is designed primarily as a guide for the teaching of the course.

The activities presented in this manual will help students explore steps in obtaining a job; give them some idea of tomorrow's jobs; and also give students an idea of tasks connected with the jobs.

1. Student Objectives:
   a. investigate the many careers related to horticulture
   b. become acquainted with the Dictionary of Occupation Titles and the job descriptions summarized by the U.S. Dept. of Labor.
   c. identify qualifications necessary for these occupations
   d. perform activities related to the tasks of horticulturalists
   e. prepare career analysis sheets for as many careers as possible
   f. evaluate the activities in the course and one's personal interest in horticultural careers.

2. Teacher Objectives:
   a. briefly review field of horticulture

b. direct activities that enable students to explore jobs
c. provide desired information that cannot be obtained by the students
d. provide resource materials and persons
e. supervise the activities of the students
f. evaluate each student's activities
g. evaluate the course.
h. help students develop acceptable standards of behavior such as desirable personality, emotional control, dependability, responsibility, and loyalty.

C. Course Strategy

In exploring the many career opportunities in these related fields, it is important that the students meet as many people as possible who are actively engaged in related careers. A minimum of one field trip is necessary in this course. Arrangements can be made with resource people to come into the classroom and/or use a conference phone connection. It is suggested that preferably one speaker per week be made available to the students.

D. SUGGESTED TIME TABLE

Exploration Activities

Number	Title	Days
1	Introduction to Course	2
2	Use of D.O.T.	1
3	Horticulture	7
4	Nursery Operation	7
5	Arboriculture	6
6	Turf Grass Management Technician	5
7	Landscape Development	5
8	Park and Recreational Land Management	4
9	Individual Student Exploration Into Related Careers	6
10	Student Self Evaluation of Career Maturity	2
		45

TYPES OF ACTIVITIES WHICH MAY BE USED IN THIS COURSE INCLUDE:

1. Analysis of activities of a job.
2. Analysis of student's interest.
3. Knowledge and analysis of student's aptitudes.
4. Relationship of job to course one should take during present and future--vocational and non-vocational.
5. Relationship of job to post-high school training opportunities, location, costs.
6. Sharing sessions with rest of class-using posters, collages, video tapes, slides, role-playing, simulations, games, etc.
7. Sources of information about jobs--broad fields.
8. List of local resources related to a job or a broad area-cluster.
9. Role of a job or cluster in our economic and social system.
10. Relationship of a job to goods, services.
11. Case studies of a person or a particular job.
12. Examine feelings about a job, or job cluster; why do you have these feelings; are they objective or subjective?
13. Role-play a job interview for a particular job, or an hour on the job.
14. Field trip with specific outcomes identified.
15. Analysis of fringe benefits of a job.
16. Analysis of safety measures on a job.
17. Spokesman classroom used in several modes.
18. Establish resource library on jobs and clusters.
19. Displays of equipment used on job.
20. Interview.
21. Experience in vocational labs.
22. On-job-experience.
23. Observing person at work.
24. Constructing models.

A special experience being planned for students in every career exploration course is a small group "Exploration Trip". Effort has been made to make this as simple as possible for the classroom teacher. As noted in Appendix B these trips may take place before the first class meeting if the exploration course is scheduled for the 2nd, 3rd, or 4th quarter.

The last exploration activity in this course will ask each student to participate in a "Self Evaluation of Career Maturity" and will provide each student an opportunity to analyze and discuss their career-related experiences.

The intent of this curriculum guide is one of providing teachers assistance in evolving their own curriculum. Feel free to use your copy for notes, additional activities, or additional job packets.

II. A. Major Fields of Ornamental Horticulture

Ornamental Horticulturist (040.081)

1. Nursery Operation
2. Floriculture
3. Turf Grass Management
4. Arboriculture Technician
5. Landscape Development
6. Park and Recreational Management

B. Occupations in Ornamental Horticulture

406.168 Nurseryman
- Azalea Grower
- Evergreen Grower
- Greenhouse Florist

406.181 Flower Grower
- Bulb Grower
- Rose Grower
- Mushroom Grower
- Seed Grower

406.884 Laborer, Nursery

406.887 Bagger-and-Burlap Man
- Groundman
- Nursery Worker
  - Flower Clipper
  - Fumigator, Nursery
  - Hotbed Man
  - Potting Man
  - Transplanter
- Tree Planter

407.134 Park Foreman

407.137 Greenskeeper

407.138 Superintendent, Greens
- Tree Trimming Foreman

407.181 Landscape Gardener
- Landscaper

407.883 Greenskeeper
- Laborer, golf course

407.884 Groundskeeper
- Yard laborer
- Gardener
- Caretaker
- Grass Cutter
- Riding-Mower Operator

407.887 Camp-Ground Caretaker
- Cemetery Worker
- Laborer, Landscape
- Park Worker
  - Trail Builder

409.181 Tree Surgeon

II. CAREER EXPLORATION ACTIVITIES

INTRODUCTION TO COURSE

EXPLORATION ACTIVITY (INTRODUCTORY) #1 (2 day)

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to: 1. Discuss critically the objectives of the course. 2. Question people's attitude at work under various conditions as illustrated in a film. 3. Form a general understanding of the course outline and procedure. 4. Form some basic conclusions through the "self-analysis quiz." 5. List and discuss at least 4 important factors of good on-the-job performance. 6. Describe a wide variety of skills needed for specific jobs in this occupational area.	1. The student will be informed of the purpose of this course, what is hoped to be accomplished, and will be led into a discussion of activities involved in Career Exploration. 2. The student will defend or reject by role playing, the position of maintaining good personal appearance, attitude and conduct on the job. 3. Explain to students the relation of the course and the "Self-Analysis Quiz" to their career selection. Students will participate in this self-analysis quiz. 4. Hand out and discuss a "Job-Performance Rating Sheet" which will be administered and discussed as part of the last exploration activity in this course.	Class set of "Self-Analysis Quiz" (attached) Class set of "Job Performance Rating Sheet" (attached) "What Do We Look Like To Others" 16 mm film, 10 min., Sandler Instructional Films, Inc. Board of Education.

SELF-ANALYSIS QUIZ

Directions: Check the line closest to the statement that identifies you. If you are uncertain, check the middle space.

Make at least average grades	_____ _____ _____	Make below average grades
Learn quickly	_____ _____ _____	Learn slowly
Enjoy reading books, magazines, etc.	_____ _____ _____	Enjoy reading comics
Like school and do extra work	_____ _____ _____	Do only schoolwork that is necessary
Talk and write well	_____ _____ _____	Talk and write poorly
Good planner and organizer	_____ _____ _____	Poor planner and organizer
Like children	_____ _____ _____	Dislike children
Patient with children's questions	_____ _____ _____	Impatient with children's questions
Outgoing	_____ _____ _____	Withdrawn
Popular	_____ _____ _____	Not popular
Have large group of friends	_____ _____ _____	A few close friends
Have confidence	_____ _____ _____	Unsure around others
Give advice	_____ _____ _____	Not asked for advice
Outspoken	_____ _____ _____	Quiet
Sensitive to others	_____ _____ _____	Insensitive to others
Trust people	_____ _____ _____	Do not trust people
Volunteer	_____ _____ _____	Do not volunteer
Pleasant personality	_____ _____ _____	Do not have pleasant personality
Have a sense of humor	_____ _____ _____	"Touchy"
Not prejudiced	_____ _____ _____	Prejudiced

JOB PERFORMANCE RATING SHEET

NAME: _____ DATE: _____

DEPT. _____ OPERATION: _____

	EXCELLENT	GOOD	FAIR	POOR
Attendance & Punctuality				
Quality of work				
Production				
Initiative				
Cooperation with instructor				
Cooperation with other students				
Interest in job				
Meets industrial quality standards				

If the student rates "poor" on any factor

or

If the student rates "fair" on more than three factors:

Discuss with the student the areas in which he or she will need to improve, before he can attain success in his chosen field.

Remarks: _____

_____

_____

EXPLORATION ACTIVITY (INTRODUCTORY) #2

Use of the D.O.T. (Dictionary of Occupational Titles) Number:

The D.O.T. lists 35,550 jobs with a code number for each. The last three digits of this code refer to the relationship of that job to data, people and things. This exploration activity provides the students some experience in using this information to identify jobs which match their interests.

OBJECTIVES	ACTIVITIES	RESOURCES
The student will be able to: Compare their knowledge about the data, people, things content of jobs to factual information listed in the D.O.T. for five jobs of personal interest.	The teacher will conduct a classroom discussion on the D.O.T. code number in identifying the data, people, things orientation of jobs. (See the attached page for examples.) Following this discussion each student is to complete the "D.O.T. Worksheet" which compares the student's estimate of the data, people, things job content to that listed in the D.O.T.	Dictionary of Occupational Titles, Volumes I and II Make a class set of "Examples of D.O.T. Code Usage." Make a class set of the "D.O.T. Worksheet"

EXAMPLES OF D.O.T. CODE USAGE

JOB TITLE	D.O.T. CODE	D.O.T. CODE MEANING
High School Teacher	091.228	
	(Things)	8 - No significant relationship
	(People)	2 - Instructing
	(Data)	2 - Coordinating
Waitress	311.878	
	(Things)	8 - No significant relationship
	(People)	7 - Serving
	(Data)	8 - No significant relationship
Stock Clerk	223.387	
	(Things)	7 - Handling Things
	(People)	8 - No significant relationship
	(Data)	3 - Compiling
Auto Mechanic	620.231	
	(Things)	1 - Precision working
	(People)	8 - No significant relationship
	(Data)	2 - Analyzing data

DATA (4th digit)

0 Synthesizing
1 Coordinating
2 Analyzing
3 Compiling
4 Computing
5 Copying
6 Comparing
7 No significant relationship
8

PEOPLE (5th digit)

0 Mentoring (Counseling)
1 Negotiating
2 Instructing
3 Supervising
4 Diverting
5 Persuading
6 Speaking-Signaling
7 Serving
8 No significant relationship

THINGS (6th digit)

0 Setting-Up
1 Precision Working
2 Operating-Controlling
3 Driving-Operating
4 Manipulating
5 Tending
6 Feeding-Offbearing
7 Handling
8 No significant relationship

For a definition of the above see pages 649 and 650 in Appendix A of the Dictionary of Occupational Titles Volume II.

D.O.T. WORKSHEET

STEP 1. In table I at the bottom of this page, write the names of five jobs which are interesting to you.

STEP 2. Use the handout sheet titled "Examples of D.O.T. Code Usage" and make an estimate of the correct code to describe this job. Record this estimate in Table I.

STEP 3. Use Volume I or II of the D.O.T. and look up the D.O.T. code designation for each job. Compare these designations to your estimate.

TABLE I

	NAME OF JOB	STUDENT'S ESTIMATE OF THE CORRECT CODE	D.O.T. CODE DESIGNATION
1.	_____	XXX._ _ _	_____
2.	_____	XXX._ _ _	_____
3.	_____	XXX._ _ _	_____
4.	_____	XXX._ _ _	_____
5.	_____	XXX._ _ _	_____

Horticulture

EXPLORATION ACTIVITY #3

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to: 1. Investigate the market for flowers in the United States. 2. Investigate the careers related to flower production. 3. Investigate the careers related to flower merchandising. 4. Complete the activities related to floriculture. 5. Evaluate the jobs in floriculture which has most appeal to you.	1. a. Use magazines; watch television; visit florist shops; comment on weddings, proms, float parades; b. Contact a flower wholesaler to find out the supply and demand for flowers in Cincinnati. c. Relate personal experiences to the uses of flowers. 2. a. Visit a florist's greenhouse b. Interview commercial flower growers c. Visit Krohn Conservatory (Eden Park) and interview workers there (See Interview Form in Appendix) d. Write to seed compaines to obtain information regarding production of flowers for seed. 3. a. Visit a florist or interview one or many in the classroom. b. Observe a floral designer c. Visit a commercial garden center or interview the proprietor in class or individually. d. Contact Garden Center to see what jobs are available there. 4. a. Distinguish among house plants, ferns, animals and perennials that are sold in garden centers and florist shops. b. Use magazine pictures and drawings to make posters showing uses of flowers. c. Grow flowers from seed (Construct flat beds) d. Design and plant planters for home use or for sale. e. Make flower arrangements. f. Set up florist shop. Write up sales. g. Role play: homeowners asking advice in Garden Center on care of roses. 5. Select the job with greatest appeal; describe necessary education; describe possible places of employment.	a. Durban Greenhouses 533 McAlpin Avenue 861-7866 b. See film list "To Say it Best" d. Garden Center of Greater Cincinnati 2715 Reading Road 221-0981 a. Magazines Botany texts Garden Catalogues b. Exercise caution to see that library publications are not destroyed. e. Artificial flowers f. Garden-store bulletins

EXPLORATION ACTIVITY #4

NURSERY OPERATION

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to:		
1. Locate plant nurseries and garden stores in the Greater Cincinnati Area.	1. Use telephone "Yellow Pages" and list names and addresses of plant nurseries and related businesses.	"Yellow Pages"--Telephone Books 1. Warder Nursery-Cinti. Park Board 242-1962
2. Identify jobs performed at these nurseries and businesses	2.a. Tour a nursery and/or a greenhouse b. Ask questions of employees c. Take notes for later reference in class discussion. d. List the different levels of employment.	2. Natorp Garden Store 10925 Hamilton Avenue 825-4444
3. Complete job analysis sheet on one specific job at entrance level; show possible progression to professional level.	3.a. Interview a director or employee of a nursery or related business b. Read selection in book for job description. c. Write answers to job analysis (See job analysis work sheet in Appendix F) d. Use panel or oral reports for sharing information with classmates.	3. Vocational School-or Cinti. Technical College
4. Perform certain tasks that are done by nursery operation technician.	4.a. Compare soils by texture and color at various locations on school grounds. Relate soil to types of plants growing there. b. Pot geranium or begonia cuttings. c. Inspect plants on campus for evidence of plant disease. d. Identify ornamental trees and shrubs by both common and scientific name.	a. Soil Test Kits b. Cuttings should be taken from geraniums or begonias at the beginning of the course. d. Obtain garden store catalogues
5. Evaluate the jobs in terms of individual appeal.		

24

EXPLORATION ACTIVITY #5

Careers include: Arborist, Tree Trimmer, Arboretum Foreman, Tree Mover, Tree Supply Salesman, Arboretum Superintendent, City Forester, Tree Expert, Tree Surgeon, Park Foreman, Tree Service Proprietor.

ARBORICULTURE

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to:	1. a. Use "Yellow Pages"	a. "Yellow Pages" Telephone Books
1. Locate business, Federal, State, County and City where jobs are available.	b. Make observations outside of class to determine work being done with trees - and who performs the work.	
25		
2. Identify careers in the field of Arboriculture.	2. a. Visit an Arboretum. Write job description on each person who works there (See Appendix G).	a. Mt. Airy Arboretum 541-8176
	b. Interview a worker from an Arboretum	
	c. Visit Spring Grove Cemetery and interview superintendent and/or workers.	c. Superintendent - Mr. Stueve 541-9607
	d. Interview a tree service proprietor and/or any resource person who comes into the classroom.	
3. Perform tasks that are done by an Arboriculture Technician.	3. a. Tour school grounds and streets near the school.	
	1. Make notes of trees that need the services of a tree surgeon.	
	2. Name trees and shrubs that need the services of a tree pruner.	
	3. Inspect trees for various diseases.	
	b. Examine tools used by an arborculturist:	b. Students bring tools to class
	1. chain saw	
	2. hand and electric hedge clippers	
	3. pruning shears	
	4. grinder-shredders for compost	

OBJECTIVES	ACTIVITIES	RESOURCES
	5. types of sprinklers 6. spray equipment 7. power tillers	
	c. Trim and prune trees and shrubs on school grounds. 1. Cut dead branches from trees dressing the cut ends. 2. Fill holes in dead trees with cement.	c. Tree pruning, saws and shears from school custodians. Permission necessary.
	d. Plant a tree on school grounds. e. Make cuttings of evergreens from the shrubs around home or school. Cut from rear of plants, making sure to include new and old growth. Plant after root system forms.	e. Buy a root hormone preparation.
92	f. List insect and fungus killing chemicals and the trees to which they are applied. Discuss the persons whose jobs are involved in this work.	f. Ortho Lawn and Garden Book. (Chevron Chemical Co. Ortho Division 200 Bush St. San Francisco, Calif. - (20) 25¢ a copy. Available at most garden stores
4. Evaluate the job in terms of individual appeal.	4. a. Complete evaluation sheet (See Appendix H). b. Report in writing if you like the job. List the good and bad things about the job. c. Write a letter to a fictitious company for a job listing your qualifications now and your future qualifications. d. Discuss students' letters.	

EXPLORATION ACTIVITY #6

Turf Grass Technicians work in at least three general areas: the private sector; the public sector; and allied areas such as sod production, turf grass seed production, irrigation, transplantation, sale of pesticides and equipment, and other sales and service fields.

Turf Grass Management Technician

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to:		
1. Locate and identify businesses in the Cincinnati area.	1. a. List the businesses offering jobs in the field of turf grass. b. Write a letter to a seed company for information in this field. c. Write the name, address, and phone number of businesses that specialize in the sale of grass seeds and lawn supplies. d. Write the name, address, and phone number of businesses that offer sod for sale.	1. a. Use Yellow pages. b. Scotts, Marysville, Ohio 43040
2. List job requirements.	2. a. Interview a turf grass technician at a garden store or invite an owner of a business that specializes in sale, installation and care of grass to class. Answer the following questions What school subjects help a person to gain knowledge for this job? Is a rugged physique necessary? Do salesmanship qualities help a person? Why is reasonable proficiency in oral and written communication a necessary job requirement? Must I take extra courses after I finish high school?	2. Teacher use student list to call owner.

EXPLORATION ACTIVITY #6

Turf Grass Management Technician

OBJECTIVES	ACTIVITIES	RESOURCES
	b. Collect top soil from woods. Place aluminum T.V. dinner trays. Put holes in the bottom of the tray. Plant various grass seeds and compare seedlings.	2. a. Purchase from garden store. Students bring T.V. trays to school.
	c. Collect seeds from the turf around the school building. 1. Plant seeds in T.V. trays 2. Examine seeds with hand lens	b. Buy seeds of various grasses c. Hand lens from Biology Department
	d. Collect pieces of sod, bringing to classroom. 1. Try different types of light for growth. 2. Perform growth experiments with different types of fertilizers. 3. Experiment with fertilizers on the sod. Use different combinations of nitrogen, phosphorus, and potassium, such as 30-3-10. 4. Place fertilizer on sections of lawn on the school grounds. Assign a square yard of turf to each member of the class. Use small wood stakes to define each section. Direct students to do experiments with their plot such as application of fertilizer, insecticide, weed control.	d. Fertilizer Company booklets Use fertilizer from school custodian's supply.
	e. Use a fertilizer spreader and apply fertilizer to an area of the school lawn.	
	f. Role-Play 1. Turf salesman and potential sod buyer 2. Turf salesman and potential buyer of turf care, such as yearly lawn service 3. Technician selling lawn seed, fertilizer, and other lawn supplies.	f. Students provide necessary props.
	g. Interview a person from Chem-Lawn Corporation to determine jobs available in this area of scientific lawn care.	

Landscape Development

EXPLORATION ACTIVITY #7

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to: 1. Distinguish the landscaping careers among planning, constructing, and proprietorship 2. Analyze the jobs in these areas. 3. Perform activities related to landscaping.	1. a. Write job and their descriptions. b. Visit a landscape service. c. Visit a near by landscaped private estate, or commercial property and list jobs associated with obtaining the finished product. 2. a. Interview as many persons as possible in the area of Landscape Service. b. Interview a landscape architect. c. Complete career analysis sheets. 3. a. Map the school grounds, showing location of trees and shrubs. b. Answer the following questions pertaining to the map and school grounds? 1. Who supplied the shrubs and trees? 2. Who planted the shrubs and trees? 3. Who is responsible for the care of the plants? 4. Are there rules regarding the height of plants near walls and windows? 5. Does the shade from buildings affect plant growth? 6. If improvements are needed, where should they be made? c. Select one small area of school grounds and install plants and structural materials. d. At Aiken - plan an attractive patio area e. Plant bulbs in a border area. f. Remove weeds from shrubs. g. Have campus clean up day. h. Take walk through neighborhood and compare house owners yards.	a. book: Career Opportunities see appendix library references 2. a. students may know these people personally, otherwise, teacher make contacts b. school custodian assistant superintendent in charge of building and grounds.

EXPLORATION ACTIVITY #7

Landscape Development

OBJECTIVES	ACTIVITIES	RESOURCES
	1. Use magazine pictures to discuss role of landscapers.	
4. Evaluate the careers in landscaping in terms of their benefit to views.	4. Select a picture of a landscaped area and analyze the placement of plants in regards to their physical characteristics, their grouping, and the over-all design.	

EXPLORATION ACTIVITY #8

Park and Recreational Land Management

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to:		
Locate commercial recreational areas within 30 miles of Cincinnati that require grounds maintenance.	1. a. Relate personal excursions to local recreational areas and describe the grounds. b. Use "Yellow Pages" to list golf courses, amusement parks, ball fields, ect. c. Confer with parents and relatives to expand lists.	1. Yellow Pages and Newspapers
2. List private estates or businesses in areas which require grounds maintenance.	2. Use class resources to develop lists of motels, industrial parks, estates, etc. which might offer employment in this area.	
3. Locate city, county and state parks within 50 miles of Cincinnati	3. Telephone or write to various governmental park departments in Cincinnati, Covington, Hamilton County, State of Ohio, State of Kentucky. Inquire about positions held by park employees. Each student might be responsible for a different park.	
4. Investigate the jobs performed at these areas.	4. a. Interview a grounds keeper, or greens keeper or other maintenance technician. b. Visit Kings Island, Kings Mill, Ohio, or use conference phone to interview the grounds superintendent. c. Interview the City of Cincinnati Park Board superintendent. d. Visit your nearest city park and record the jobs that are performed there. Interview a worker if available. e. Discuss family trips to federal, state or county parks and list the duties of park rangers. f. View films related to forestry and soil. g. Visit City Hall (Cincinnati), Civil Service Room, to obtain job description and salaries of city park and recreational employees.	b. Mr. Don Martin c. Mr. Fred Payne 352-4080 f. See film list
5. Evaluate careers in terms of their availability in this area.	5. Write a summary of park and recreational land management jobs and places of employment	

EXPLORATION ACTIVITY #9

Individual Student Exploration into Related Careers. Because of the multiplicity of careers in this occupational area, many have been left untouched in this curriculum guide. In this exploration activity, the students can explore a related career of their choice. There are a number of related careers which are the major subject of other curriculum guides.

OBJECTIVES	ACTIVITIES	RESOURCES
The students will be able to: 1. Identify and explore at least one additional career related to their individual interests and this occupational area. 2. Locate and record specific information related to a career of individual interest to them.	All students select and explore a career or job which is related to both. Their individual interest and the occupational area described in this curriculum guide. The students are to use career information reference located in the class room, school library, public library, their homes and community as resources to complete an "Individual Career Exploration Worksheet" which is attached.	Dictionary of Occupational Titles, Volumes I & II. Occupational Outlook Handbook 1972-73 Ed. Encyclopedia of Careers and Vocational Guidance Volumes I & II (Doubleday) Largo or SRA Career Kits Make a class set of the "Individual Career Exploration Worksheet"

EXPLORATION ACTIVITY #10 (2 Days Suggested)

Student Self Evaluation of Career Maturity

This activity is planned to help the students analyze and learn to value their career-related experiences and the level of their career maturity.

Seven areas of growth and development which have been identified for this use are as follows:

1. Individual and Environment (Social Awareness)
2. Economics
3. World of Work
4. Education and Training
5. Employability and Work Adjustment Skills
6. Vocational Decision Making
7. Self (Self-Awareness)

OBJECTIVES	ACTIVITIES	RESOURCES
Students will be able to: - Respond, in a purposeful and business-like manner, to one or more questions which ask the student to analyze their experiences in each of the developmental areas.	All students are asked to seriously consider their career related experiences. A brief class discussion and/or small group discussions may be used to introduce this topic. The students should view the films "What Do We Look Like to Others" and "I Want to Work For Your Company" If these films have been viewed previously they should be reviewed and discussed. Following a review of these films each student is asked to respond to a set of self-analysis questions prepared by the teacher. To help the teacher in preparing these questions a definition of each developmental area and sample questions for each area are attached to this sheet.	The teacher will need to generate class sets of questions. These two films are available from Resource Services on Iowa Street.

IV APPENDIX

A. Field Trips in Career Development

B. Procedure for Exploration Trips

C. Exploration Trip Permission Form

D. Exploration Trip Report

E. Interview Form (Ornamental Horticulturist)

F. Job Analysis Work Sheet

G. Job Descriptions (Arborculture Technician)

H. Individual Evaluation Sheet (Arborculture Technical)

I. Audio Visual Aids

J. Books and Pamphlets

A. FIELD TRIPS IN CAREER DEVELOPMENT

General Student Needs

1. Field trips commonize the background of the students so that there is a basis from which to develop a strong well-rounded instructional program.

2. Because the student is so far removed from his potential career, he needs a broad understanding and exposure to work.

3. Broad off-school-site experiences build readiness for learning by demonstrating that basic skills are essential to a productive work-life.

4. To thoroughly understand a career, the student needs to see the job first hand.

5. Students may not realize all the implications/facets of an occupation in terms of personal interests until they have an exposure to the worker in action.

6. Omission of hands-on experiences may cause a lack of credibility in those courses taught, in the upper levels.

7. While field trips benefit the student, they also benefit the teacher, who, without their assistance, is required to serve as expert on the details of many careers which are not necessarily related to his own speciality.

8. Field trips, when used correctly, can be a source of creating better communication and understanding between business, labor and industry in the community and the school.

Specific Student Needs

Field Trips will do the following:

1. Develop an appreciation/awareness that an individual's skills, talents and senses are used in a variety of ways.

2. Develop an awareness of the importance of responsibility and attitude for one's work.

3. Encourage the development of communication skills. Broad off-school-sites experiences demonstrate need and provide motivation for skill learnings.

4. Develop an awareness of the interdependence of the student and all workers.

5. Develop an awareness that there are many people who have different responsibilities in business, labor and industry.

6. Develop an awareness that workers are not necessarily associated with or limited to a specific location and an understanding that there are many kinds of work within specific sites/fields.

B. PROCEDURE FOR EXPLORATION TRIPS

SCHEDULE CONSIDERATIONS:

An opportunity is to be provided for students to visit cooperating organizations in small groups for a highly personalized and individualized experience directly related to their career interests. It is essential to minimize the burden on cooperating organizations and to distribute this burden among all community resources and throughout the school year. To accomplish this, trips must be scheduled from the beginning of the school year, and be evenly spaced during the year until every student has been accomodated. The students in a quarter length exploration class may, therefore, participate in an exploration trip prior to, during, or following the time that the course is in progress.

PROCEDURES:

Once each month, or even less frequently, the teacher will need to:

1. Place a single phone call to a cooperating organization to set the date and time for the trip.
2. Notify Mr. Jerome Cousins (Education Center, 230 East Ninth St.) of the date and time for the trip.
3. Select six students from the Career Exploration class list.
4. Send permission slips and trip report forms to the selected students via their homerooms.

Permission slips and report forms are illustrated on the following pages. These forms should be reproduced from this curriculum guide as required.

The career committee chairman or coordinator will provide you with a list of organizations which are known to be willing and able to accommodate your students. Addresses, phone numbers and names of persons to contact will be provided.

C. CAREER EXPLORATION TRIP PERMISSION FORM

You are schedule for _____ (Career Course Title) which meets 1-2-3-4 quarter. Exploration trips will be scheduled throughout the year regardless of whether the course is in session.

A trip has been schedule for _____ (Date) to _____ (Name of Company) Please have this form signed and return to _____ (Teacher's Name) _____ (Room) before _____ (Date).

My son/daughter _____ has my permission to visit _____ on _____ with the Career Exploration Course _____. The group will return to school upon completion of the tour. There will be about six students in each group.

_____
Parent/Guardian Signature

_____
Date

The following teachers have been informed of my absence from class. (Teachers' signatures required.)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

D. EXPLORATION TRIP REPORT

1. Course Title _____

2. Student's Name _____

3. Organization or Company _____

   Address _____

   _____

4. Major Products or Service:

   1. _____ 4. _____

   2. _____ 5. _____

   3. _____ 6. _____

5. Major Types of Jobs:

   1. _____ 4. _____

   2. _____ 5. _____

   3. _____ 6. _____

6. What did you like best about this trip?

   _____

   _____

   _____

7. Did you see any jobs that you would like to do? List them.

   _____

   _____

8. What did you learn from this tour?

   _____

   _____

_____

Signature
Representative of Organization
Visited

E. Ornamental Horticulturist

Interview Form

1. How many different types of jobs does a horticulturist do?
2. Who will hire a horticulturist?
3. What is the pay?
4. How did you get your training?
5. Must a person go to college to be a horticulturist?
6. Will there be jobs in the future in the field?
7. Do you get to work outdoors?
8. What do you do in bad weather?
9. Why is your work interesting?
10. Why did you select the job?
11. Is your job like a farmer's job?
12. How much do you need to know about plants and soil?
13. If I am not smart enough to be a horticulturist, are there other jobs in the field?
14. What is a horticulture technician?
15. How can I get a summer job in horticulture to see if I like this type of work?

F. JOB ANALYSIS WORK SHEET

Name of job explored: _____

1. Briefly describe in the space below the main duties of the job.
2. What manual skills does the job require?
3. What school subjects are most important to this job?
4. Is the job primarily for men, women, or both?
5. How many years of schooling does the job require?
6. How many hours a week does the job require?
7. What days of the week would you have to work?
8. What shifts would you be required to work?
9. Would you be paid by the hour or by salary?
10. What would be your starting pay?
11. What would be the highest pay you could earn on this job?
12. Are job opportunities in this field increasing, decreasing, or remaining the same?
13. Are there opportunities for promotion to better positions in this job?
14. What part of the job was most pleasing to you?
15. Does the job require you to take any special tests before you can enter the field?
16. Does this job require overnight travel?
17. If you fulfill all the requirements, how would you go about getting this job?

G. ARBORCULTURE TECHNICIAN

Job Description

JOB	TASK (WHAT HE DOES)	TAKES ORDERS FROM ME
JUNIOR ARBORIST		
TREE PRUNER OR TRIMMER		
ARBORETUM FOREMAN		
TREE MOVER		
TREE SUPPLIER (BUYING)		
PLANTER		
PROPAGATOR		
HORTICULTURE		
SUPERINTENDENT TREE EXPERT		
TREE SURGEON		

H. ARBORICULTURE TECHNICIAN
INDIVIDUAL EVALUATION SHEET

(Fill in Blanks
and answer following questions)

1. Will I be able to master the technical knowledge?
2. Work outdoors in mud _____?
3. Climb trees _____? Climb ladders _____?
4. Do I have a love for growing things _____?
5. Strength _____?
6. Health _____?
7. Write reports _____?
8. Complete high school _____?
9. Dig holes _____?
10. Work in rain _____?
11. Get my hands dirty _____?
12. Work with my hands _____?
13. Use chemical sprays _____?
14. Start at the bottom and work up the ladder _____?
15. Pass a test for the position _____?
16. Go into business for myself _____?
17. Work with people _____?
18. Be able to sell _____?
19. Carry heavy insurance protection _____?
20. Work 40-hours per week _____?
21. Work overtime _____?
22. Start at $100 - $125 per week _____?
23. Start as a Junior Arborist for summer work _____?
24. Supervise others _____?
25. Is the job open to girls _____?
26. Is the job for me _____?

I. Films: Modern Talking Picture Services Inc.

Conserving Our Forests Today (11 min.) 130-3623

Conserving Our Soil Today (11 min.) 130-3625

Genetics: Improving Plants & Animals (13 1/2 min.) 130-4033

Fresh Country Apples 4586 (17 min.)

To Touch the Sky 4392 (28 min.)
Forestry

The Good Seed 3170 (4 min.)

To Say it Best 3399 (24 min.) Carnations

Ballad of the Trees (25 min.) 4241

Abundant Harvest (13 1/2 min.) 4442

Durum - Standard of Quality (28 1/2) 4191
Wheat

A Lot to Learn (22 min.) 3585 - available in Atlanta & Chicago

Modern T. P. Serv. Inc.
412 W. Peachtree St., N.W.
Atlanta, Ga. 30308

Modern T. P. Serv. Inc.
160 E. Grand Ave.
Chicago, Ill. 60611

J. "Horticulture A Rewarding Career" - (pamphlet)

American Society for Horticulturel Science
P. O. Box 109
St. Joseph, Mich. 49085

Secure through Educators Progress Service, Inc.
Randolph, Wisconsin

The American Assoc. of Nurserymen
835 Southern Building
Washington, D. C. 20005 - (pamphlets)

"Opportunities for You in the Florest Industry"
Society of American Florists
Sheraton Park, Washington, D. C.

Dictionary of Occupational Titles
U.S. Government Printing Office
Washington, D. C. 20402 - (book)

"Careers in Conservation"
Soil Conservation Society of America
Regional Technical Center
134 South 12th. St.
Lincoln, Nebraska 68508 - (pamphlet)

Career Opportunities
Ecology, Conservation & Environmental Control
J. G. Ferguson Publishing Co.
Chicago, Ill. - (book)

Professional Turf Seminar
Professional Turf Manual
Scotts
Marysville, Ohio